ON DIGLENA ROSTRATA: A NEW ROTIFER.

By F. R. Dixon-Nuttall, F.R.M.S., and Rev. R. Freeman, M.A.

(Read December 20th, 1901.)

PLATE 9.

Specific Characters

| Body: long, thin; dorsum, slightly arched; venter, flat. |
| Face: long, prone, with a long projecting hook. |
| Eyes: two, red, frontal. |
| Foot: thin, cylindrical. |
| Toes: long, blade-shaped.

Towards the end of April, 1901, we found this graceful Diglena in water taken from the large lake in Knowsley Park, Lancashire, which at once struck us as being a new species, both on account of its hyaline appearance, and also on account of the long projecting prow-like beak. From this latter feature we decided to name it rostrata, after "rostrum," the beak or prow of a boat.

The skin is soft and very transparent, but apart from the twofolds in the neck, and the parts posterior to the lumbar fold, the animal is not given to contortion, so that its general outline remains constant.

Viewed laterally, the dorsum is slightly arched towards the lumbar regions, but hardly sufficiently so to destroy the graceful outline. It rounds rapidly to a lumbar fold, and thence tapers to the cloaca.

Viewed dorsally, the body is almost cylindrical, but slightly fusiform, tapering to the width of the foot at the lumbar fold.

The foot is cylindrical, with a slight tail-like projection, carrying no seta, as in D. uncinata. The toes are long, cylindrical, slightly decurved and outcurved, and carried wide apart when viewed dorsally.

The head is produced into a long hooked beak, which, with two red eyes situated just beneath its base, is the most striking feature of this rotifer, and can be easily observed under lowpower objectives. The face is prone, elongated, and well covered

with long vibratile cilia. The two red eye-spots, which, under high power, are slightly reniform, are simple, and not composed of a cluster of red pigment, as in *D. clastopis*.

The jaws are not of the usual savage type of the *Diglenae*. The manubria are thin rods; the unci are more like curved plates than sharp hooks as in many other *Diglenae*. The fulcrum is short and thin; the rami widen out triangularly at the base.

The dorsal and lateral antennae are well marked and in the usual position. The brain is long and clear. The gastric glands are large and clear, and easy of observation.

The whole animal is particularly hyaline, none of the specimens observed contained any brown food-matter, as is invariably the case in *D. clastopis*. The ovary, contractile vesicle, and other organs are normal.

We are strongly of opinion that this rotifer finds its food upon the *roots* of water weeds, because we never found a single example without deep dredging.

On those occasions when we dredged deeply we always found it. On other occasions, in the very same spot and at the same time when water and weeds were gathered from the surface, not a single specimen was found.

When disturbed from the roots of the weeds it is restless, swims gracefully, and buries itself rapidly in any flocculent matter it can find.

It is far from common, and we seldom obtained more than a few out of a large gathering, though the water was carefully examined for it; but by visiting its special locality several times we have been able to secure numerous specimens, and to subject it to careful and repeated examination.

Total length, $\frac{1}{106}$ in. (240 μ); toes alone, $\frac{1}{475}$ in. (53 μ); width of body, $\frac{1}{550}$ in. (46 μ). Habitat: The large lake, Knowsley Park, Lancashire.

EXPLANATION OF PLATE 9.

Fig. 1. Diglena rostrata, side view × 475. ,, 2. ,, ,, dorsal view × 475. ,, 3. ,, jaws.